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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,215	01/14/2002	Sumitaka Tatsuta	8015-1001	6209

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EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 05/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/043,215

Applicant(s)

TATSUTA ET AL.

Examiner

Tarifur R Chowdhury

Art Unit

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-- The MAILING DATE of this communication appears on the cov r sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 8 (second occurrence), 9 and 10 have been renumbered as 9, 10 and 11 respectively.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al., (Takahashi), US 2003/0025856 in view of applicant's admitted prior art (AAPA).

7. Takahashi discloses a transmittable light scattering sheet (applicant's optical diffusing element) composed of a plurality of polymers (self-fused together) varying in refractive index (page 13, claim 1)

Takashi differs from the claimed invention because he does not explicitly disclose that the polymer particles having a refractivity varying from the center to the periphery thereof.

The AAPA described in the present application discloses that a light diffusion element having fine particle with uniform distribution of refraction, namely a refractivity varying from the center to the periphery, is used for the purpose of using not scattering of light but refraction of light and thus provide secured optical diffusibility while providing somewhat less back scattering (pages 2-3).

The AAPA is evidence that ordinary workers in the art would find a reason,

suggestion or motivation to use a light diffusion element having fine particle with uniform distribution of refraction, namely a refractivity varying from the center to the periphery.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the diffusing element of Takahashi such that use a light diffusion element having fine particles with uniform distribution of refraction, namely a refractivity varying from the center to the periphery so that secured optical diffusibility and less back scattering is obtained, as per the teachings of the AAPA.

Accordingly, claim 1 would have been obvious.

As to claims 6 and 11, Takahashi discloses the use of the diffusing element in a reflection type liquid crystal display such that the diffusing element is formed within the liquid crystal cell (page 14, claims 22-23).

As to claims 2 and 7, Takahashi also discloses that the glass transition temperature of the polymers can be selected within the range of about -100° C to 250°C (overlaps the claimed temperature).

As to claims 3 and 8, Takahashi discloses that a transparent layer is in contact with one of the opposite surfaces of the layer of the polymer particles (page 8, paragraph 0081).

As to claims 4 and 9, applicant is claiming the product (a device) including a method (i.e. a process) of forming the transparent layer by dry-laminating method. Therefore, claims 9 and 10 are considered as "product-by-process" claims. In spite of the fact that a product-by-process claim may recite only process limitations, it is the product, which is covered by the claim and not the recited process. Further, patentability

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of a claim to a product does not rest merely on a difference in the method by which the product is made. Rather, it is the product itself, which must be new and unobvious (See MPEP sec 806.05(f)). Further, using a dry-laminating method to form transparent layer is common and known in the art and thus would have been obvious to avail a proven technique.

As to claims 5 and 10, Takahashi discloses that the polymer particles have a mean particle size between approximately 0.1 to 20 μm (page 7, paragraph 0070).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) US 2002/0012086 is related to transmittable light scattering sheets.

b) US 6,424,395 is related to a light scattering film including a plurality of first transparent regions each having a fibril-like cross section, and a plurality of second transparent regions differing in refractive index range from the first transparent region.

c) USPAT 6,268,961 is related to optical films having at least one particle-containing layer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 305-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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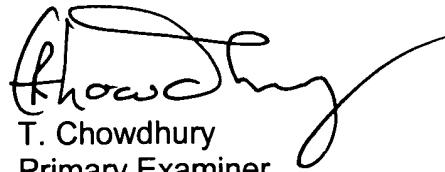
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746-7005 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

TRC
May 13, 2003



T. Chowdhury
Primary Examiner
Technology Center 2800